UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,339	10/28/1999	ALAN L. DAVIS	TI-28475	5805

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EXAMINER
KENDALL, CHUCK O

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _01 June 2004_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1 – 3, 6 – 16, & 19 – 27_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1 – 3, 6 – 16, & 19 – 27_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
       1.☐ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the application filed 06/01/04.

Claims 1 – 3, 6 – 16, & 19 – 27 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

3. Claims 1, 2, 6, 10, 14,15, 19, 23, 27 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Benson USPN 5,598,560 in view of Overturf et al. USPN

6,151,702.

Regarding claims 1,14, and 27, Benson discloses a translation system (Fig. 1),

method (Col. 20:63-21:45) for translating a source device program for a source device

into for a target device, [3:60-4:10] the system comprising:

a front end for identifying source elements in the source device program

[Fig.1,20];

a back end for generating a translation file having translation elements

corresponding to translation of the identified source device program elements.

Benson, doesn't explicitly disclose the backend including a graphic user

interface, the graphic user interface for displaying the identified source device program

elements with the corresponding translation elements, the graphic user interface having

an input unit, the input unit permitting a user to modify the translation elements based

on comparison with the aligned source device program elements [8:52-67].

However, Overturf does disclose this feature in a similar configuration (Col.6:50-60, also see fig. 3, 3a and 3b). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Benson with Overturf to implement the instant claimed invention because, displaying the elements on the window allows a user to create a match between the referenced elements more efficiently since matching controls how translations occur (Overtuff, 15: 40 – 45).

Regarding claim 2, the system of claim 1, wherein the source file is for a source device and the translation file is for a disparate target device [Benson, Fig. Part #1, 21,13, 25].

Regarding claim 6, the system of claim 1, wherein said translation is a context-dependent translation based on static analysis of the source file [Benson, 3:60-65, see parsing].

Regarding claim 10, the system of claim 1, wherein the graphic user interface is a display processor [Overturf, see Fig.1, 5].

Regarding claim 15, the method of claim 14, wherein the source file is for a source device and the translation file is for a disparate target device [Benson, Fig. 1].

Regarding claim 19, which is the method version of the system claim 6, see rationale as previously discussed above.

Regarding claim 23, which is the method version of the system claim 10, see rationale as previously discussed above.

4.   Claims 3, 7 – 9, 11 – 13,16, 20 – 22, 24 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson USPN 5,598,560 in view of Overturf et al. USPN 6,151,702 and further in view of Ma USPN 5,933,641.

Regarding claim 3, Benson as modified with Overturf discloses all the claimed limitations as applied above. Neither Benson nor Overturf explicitly teach assembly file for a target device and the translation file is a scheduled assembly file for that device. However, Ma does disclose this in a similar configuration an assembly file which assembles files back into instructions 5:38, as well as scheduled assembly see description library of information being programmed (4: 19 , and see Fig 2. part # 21

also refer to Fig. 2, #10,12,21, and associated text). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Benson as modified with Overturf with Ma to implement the instant claimed invention because, mapping instructions during translation using different formats determines the best data formats to improve accuracy and resolution (Ma, 5: 45).

Regarding claim 7, the system of claim 1, see reasoning in claim 3.

Regarding claim 8, the system of claim 7, wherein the proper target opcode is chosen from a group of potential target opcodes by comparing the target opcode and target operand with the source opcode and source operand [Overturf, Fig. 3, also see Fig. 27, for match un match].

Regarding claim 9, the system of claim 7, wherein two or more source opcodes can be combined to a single target opcode when there is a target opcode that represents the two or more source code opcodes [see table for {and opcode} as interpreted].

Regarding claim 11, system of claim 10, Benson as modified with Overturf discloses all the claimed limitations as applied above. Neither Benson nor Overturf explicitly teach wherein the graphical user interface displays at least a portion of the source elements in a source window, at least a portion of the translation elements in a translation window, and the source and translation windows are displayed side-by-side. However, Ma does discloses in a similar configuration a visual display for view dissembled results by the user [Ma, 5:40-50]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Benson as modified with Overturf with Ma to implement the instant claimed invention because, maintaining displaying source and translation elements makes analyzing the data more accurate Ma, 5: 45 – 47.

Regarding claim 12, see reasoning in claim 11, (aligned same as side by side).

Regarding claim 13, see reasoning in claim 11 for displaying.

Regarding claim 16, which is the method version of the system claim 3, see rationale as previously discussed above.

Regarding claim 20, the system of claim 14, Benson as modified with Overturf discloses all the claimed limitations as applied above. Neither Benson nor Overturf explicitly teach converting an opcode of a source machine to an opcode of a translation machine file by comparing the source opcode to possible translation opcodes or by comparing an operand of the source opcode in a generic expression with generic expression for a translation operand. However, Ma does disclose this in a similar configuration [Ma, 5:40-50]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Benson as modified with Overturf with Ma to implement the instant claimed invention because, comparing during translation from one instruction to another makes translating more targeted and efficient.

Regarding claim 21, the system of claim 20, Benson as modified with Overturf discloses all the claimed limitations as applied above. Neither Benson nor Overturf explicitly teach wherein the step of converting an opcode of the source file further comprises choosing a translation opcode from a group of potential translation opcodes by comparing the translation opcode and translation operand with the source opcode and source operand. However, Ma does disclose this feature in a similar configuration, where Ma discloses viewing and determining from different numeric formats Ma, 5:40-50, which improves accuracy. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Benson as modified with Overturf with Ma to implement the instant claimed invention because, comparing code and mapping during translation from one instruction to another makes translating to different instruction sets or architectures more efficient and accurate.

Regarding claim 22, the method of Claim 20, wherein the step of converting the source opcode further comprises the step of combining two or more source opcodes into a single translation opcode when there is a translation opcode that represents the two or more source opcodes [Benson Fig.1, item # 23, object modules are linked into one image file on the target system].

Regarding claim 24, which is the method version of the system claim 11, see rationale as previously discussed above.

Regarding claim 25, which is the method version of the system claim 12, see rationale as previously discussed above.

Regarding claim 26, which is the method version of the system claim 13, see rationale as previously discussed above.

Response to Arguments

5. Examiner has evaluated applicant's arguments of 06/01/04 correspondence, and Applicant's arguments with respect to claims 1 – 3, 6 – 16, & 19 – 27 have been considered but they are not persuasive.

Argument (1), In claims 1, 14 & 27 Applicant argues on page 12 of Applicant's response that there is no teaching or suggestion for a display device to spatially orient the source and translation elements to permit a user to correct the translation.

Response (1), Examiner believes that Overtuff does disclose this limitation as claimed by Applicant. As set forth above in claims Overtuff discloses in 14: 23 – 40, a View Maintenance window which allows a user to edit and View items being compared, also Overtuff discloses a View Matching window (15: 37 – 55), which also compares and matches certain elements as needed by user and controls how translations occur. Pertaining to Applicant's argument regarding permitting a user to correct the translation, Overtuff further discloses in 12: 45 – 55, an error list window which allows the user to review error translation and also resolve problems (correct the translation).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Correspondence

7. Any inquires concerning this communication or earlier

communications from the examiner should be directed to Chuck O.

Kendall who may be reached via telephone at (703) 308-6608. The

examiner can normally be reached Monday through Friday between 8:00

A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Tuan Dam *can be* reached at *(703) 305-4552.*

Any inquiry of a general nature or relating to the status of this

application or proceeding should be directed to the Group receptionist

whose telephone number is (703) 305-3900.

For facsimile (fax) send to central FAX number 703-872-9306 *and* 703-7467240 draft.

CK.

JOHN CHAVIS
PATENT EXAMINER
ART UNIT 2124